LAND USE

in

LINCOLN COUNTY, COLORADO

Based on
a
Field Survey

Land Utilization Program
Bureau of Agricultural Economics

April 1, 1938

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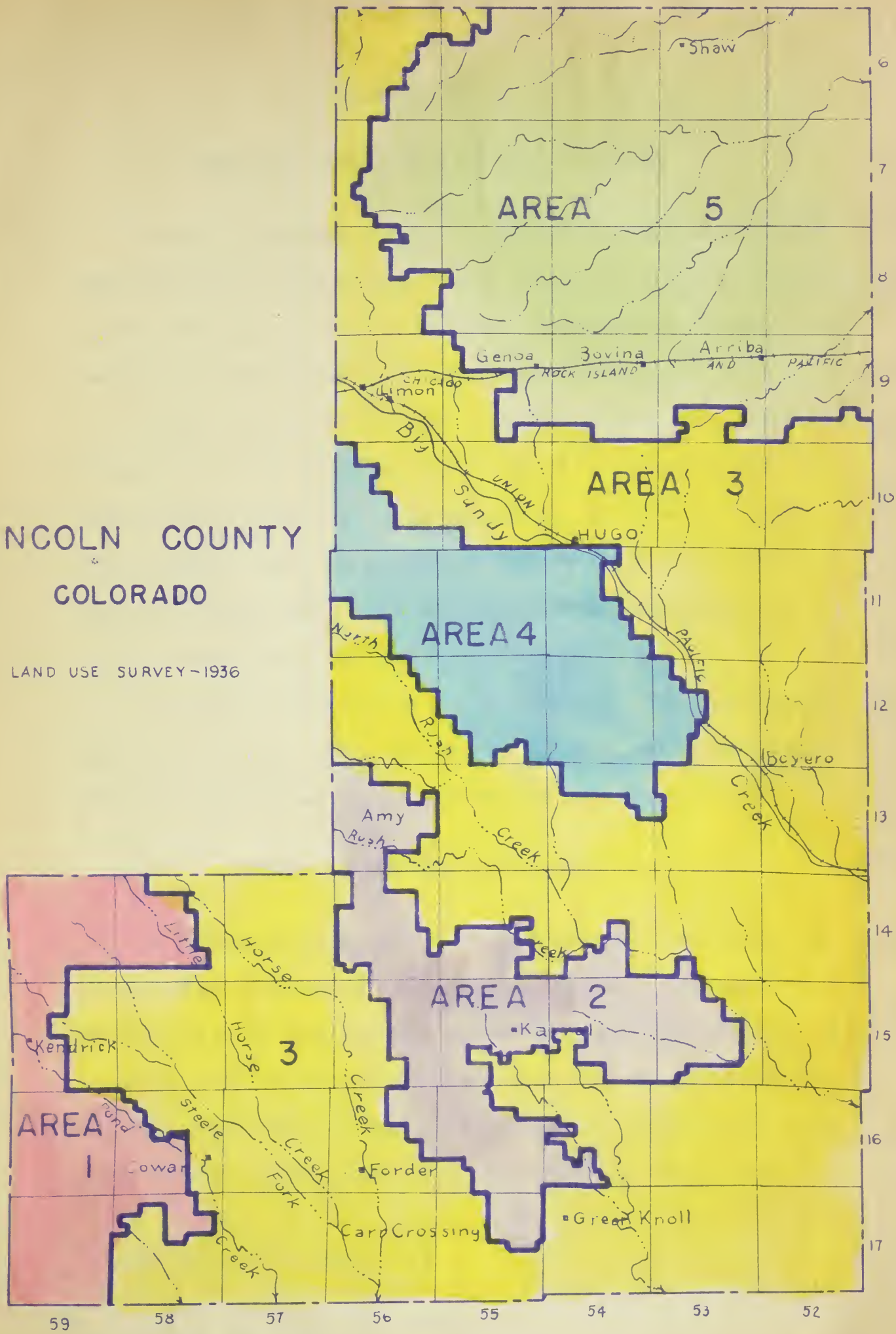


LINCOLN COUNTY

NEED FOR A COMPREHENSIVE LAND USE SURVEY

In 1937, operating under funds allotted by the Resettlement Administration, a comprehensive land use survey was made of Lincoln county. This county was one of the 14 southeastern Colorado counties designated in the "dust bowl" area of the state.

In this county, as in other counties of this area, the continued drought had its disastrous effects upon the farm operators: few crops had been produced for several years; livestock operators had been forced to sell large numbers of their stock; the number of people on relief rolls was large and a considerable number of persons were leaving the county, seeking new homes.

No adequate inventory of the natural and human resources of the county existed. This information is necessary to determine what land use and social adjustments are necessary.

METHOD OF CONDUCTING THE SURVEY

In conducting this survey, every operator in the county was contacted and a schedule of his operations taken. In addition to the schedule*, a plat was made of all land under his control. On this plat the actual land use was designated. This information was then transferred to a large county map. A complete land use picture of the entire county was thus obtained. When this

*Sample schedule in Appendix B

information had all been gathered in the field, it was sent to the regional office at Amarillo and placed in final form.

COOPERATION WITH EXTENSION SERVICE

The Colorado Extension Service held a county planning meeting in Lincoln county on January 24, 1938. The purpose of the meeting was to discuss with local farmers a program of long range agricultural planning. Before a program of this nature could be decided upon, it was necessary to discuss and analyze the various agricultural problems facing the county.

The Extension Service has given permission to include the results of this planning meeting in this report. (See Appendix C)

DEFINITION OF TERMINOLOGY

1. Land within operating units:

   Under some type of organized management. Land that is either owned or leased by the operator.

2. Land outside operating units:

   Not under any type of organized management.

3. Crop Land:

   Land planted to crops at the time the survey was made.

4. Pasture land:

   Land that maintains its native cover.

5. Idle land:

   Plowed land that is under organized management, but is not being utilized for growing of crops.

6. Fallow land:

Land that is tilled and allowed to lay idle prior to seeding wheat or other crops.

7. Open pasture:

Land that maintains its native cover and is not under organized management.

8. Abandoned crop land:

Land that has been plowed and is not under organized management.

9. Small grain:

Small grain is virtually all wheat.

10. Livestock operator:

A farm operator whose major income is from the sale of livestock.

11. Crop operator:

A farm operator whose major income is from the sale of crops.

12. General operator:

A farm operator whose income is approximately 50 percent from livestock and 50 percent from crops.

13. Non-resident owner:

An individual who owns land within a county, but who resides in another county, state, or foreign country.

14. Resident owner:

An individual who owns the land upon which he resides.

15. Corporation owner:

Land that is owned by a corporation. (Insurance companies, railroads, etc.)

16. Non-resident operator in the county:

Operator who farms land in the county of his residence, but does not reside on the farm.

17. Non-resident operator out of the county:

Operator who farms land in a county other than that of his residence.

18. Resident operator:

Operator who lives on the farm.

CLIMATE

Climate in Lincoln county is typical of that found throughout the southern high plains. It is a region of light rainfall, with several years of drought often occurring in succession. Temperatures vary greatly as the seasons change. Summer temperatures are rather high during the day, but a brisk wind movement tempers the heat. In the winter, temperatures below zero are not uncommon. However, low humidity prevails, making the cold less intense. Rainfall is erratic. Weather records for the county, taken over a 26-year period, show an annual average of 14.06 inches. The driest year recorded was in 1934 with 5.64 inches; the wettest year was in 1923 with 20.87 inches.

TOPOGRAPHY

The topography varies from rolling hilly ground to level flat surfaces covering considerable acreage. The county is bisected by a divide that diagonals across the county from west to east.

This forms two drainage areas. The area north of the divide drains into the Republican river while the area south of the divide drains into Big Sand creek. On the south side of the divide there is an escarpment, the sides of which are rough, with frequent outcroppings or rock. The area north of the divide is approximately 600 feet higher than the area south of the divide. About one third of the county is classified as first and second grade dry land. The remainder is classified as third grade dry land and sandhills.

POPULATION

Since 1920, the population of Lincoln county has gradually been decreasing. The 1936 survey showed 773 operators with a total rural population of 3,035. Since then a number of families have left the county. Careful estimates place the present rural population cinsiderably under the 1936 figures.

Population Trends
1890-1930

Year	Population	
	Number	Index (1890 as Base)
1890	689	100
1900	926	134
1910	5,917	859
1920	8,273	1,210
1930	7,850	1,139

Climatic Data for Lincoln County

(Station eight miles south of Limon)

Source: U. S. Weather Bureau

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept	Oct.	Nov.	Dec.	Annual	Seas	Year
Precipitation															
Annual mean ave.	.16	.34	.59	1.65	2.12	1.97	2.41	2.08	.94	.83	.43	.54	14.06		26
No. days with .01 in. or more	1	2	2	4	6	6	8	6	3	3	2	2	45		20
Minim. mthly.	-		T	.07	.26	.04	.20	.40	-	-	-	T			
Maxim. mthly.	.70	.84	2.40	4.57	7.63	7.48	5.40	7.15	3.02	3.89	2.56	2.22			
Driest year	T	.44	.20	.25	1.05	.26	1.75	.95	.60	.01	.15	.03	5.69		1934
Wettest year	-	.66	.63	.92	2.25	3.34	2.66	3.39	1.00	3.89	1.13	1.00	20.87		1923
Snow															
Ave. annual snowfall in.	2.2	4.2	4.9	5.2	.6	.3	-	-	T	1.3	4.5	5.9	29.1		20
Temperature															
Mean	25.6	31.8	36.3	44.6	53.8	64.1	69.3	67.6	60.5	49.0	36.9	25.7	47.1		20
Mean maxim.	39.6	43.2	51.0	59.6	68.9	79.8	84.8	82.7	76.3	64.6	51.7	38.8	61.8		20
Mean Mimim.	11.7	20.5	21.6	29.7	38.6	48.4	53.8	52.6	44.7	33.5	22.1	12.6	32.5		20
Highest	75	71	79	87	89	101	98	97	97	87	77	74	101		19
Lowest	-30	-21	-15	2	15	24	39	31	20	6	-10	-19	-30		19
Wind															
Prevailing wind direction	S	NW	NW	NW	SE	SE	SE	SE	S	S	S	NW	S		20
Ave. hourly wind velocity (Las Animas)	7.8	8.6	9.1	10.6	10.0	9.2	7.9	7.9	8.2	8.0	7.0	7.2	8.5		6

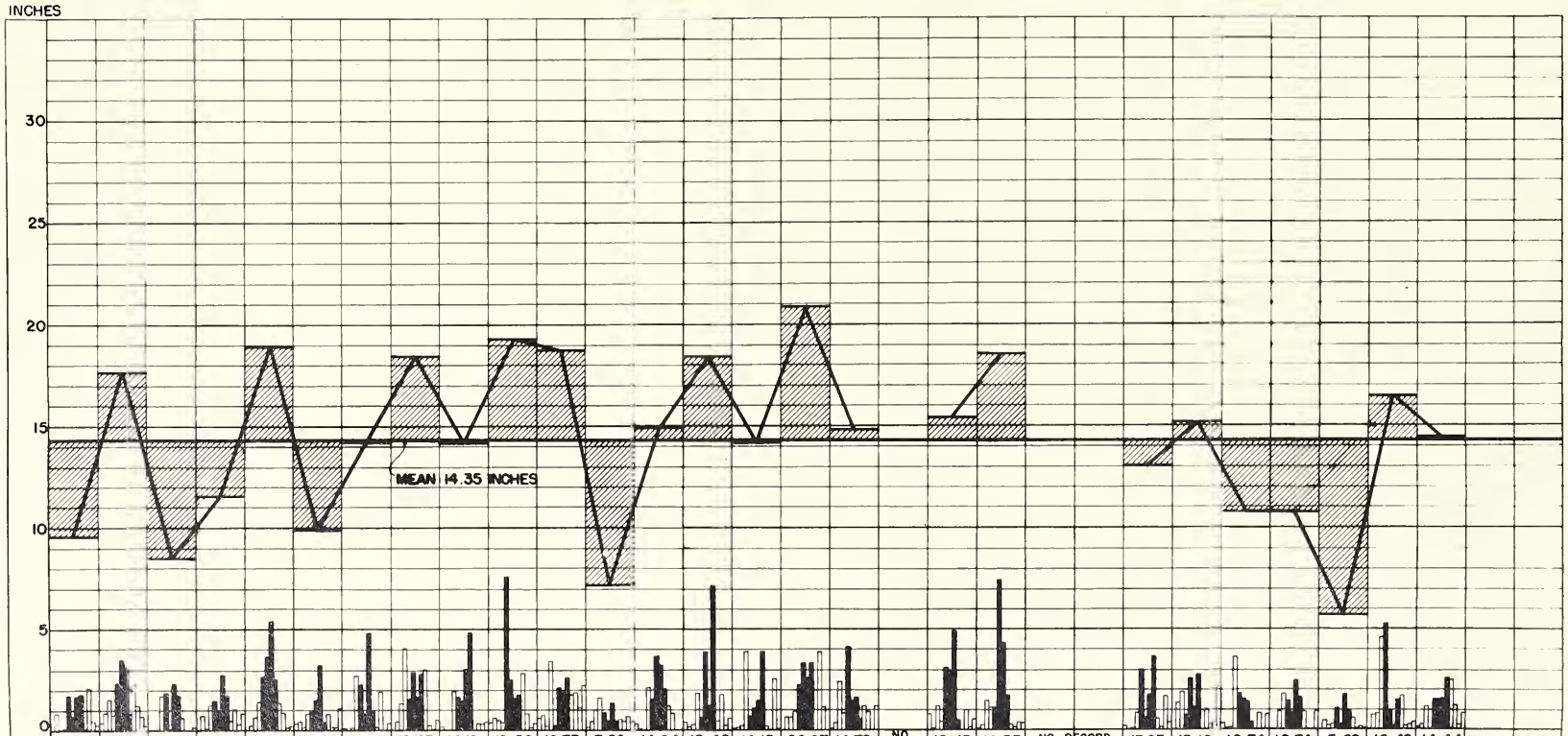
FROST DATA

Average date of last killing forst in spring - May 17
Average date of first killing frost in autumn - October 2
Average length of growing season - 138 days
Latest date of killing frost in spring - June 5
Earliest date of killing frost in autumn - September 14

ANNUAL AND MONTHLY PRECIPITATION NEAR LIMON

LINCOLN COUNTY, COLORADO

SOURCE: U.S. WEATHER BUREAU



YEAR	ANNUAL	YEAR	ANNUAL	YEAR	ANNUAL	YEAR	ANNUAL	YEAR	ANNUAL	YEAR	ANNUAL	YEAR	ANNUAL	YEAR	ANNUAL	YEAR	ANNUAL	YEAR	ANNUAL	YEAR	ANNUAL	YEAR	ANNUAL	YEAR	ANNUAL	YEAR	ANNUAL	YEAR	ANNUAL	YEAR	ANNUAL	YEAR	ANNUAL	YEAR	ANNUAL	YEAR	ANNUAL	YEAR	ANNUAL	YEAR	ANNUAL
1908	9.59	09	17.66	10	8.49	11	11.55	12	18.97	13	9.91	14	14.22	15	18.43	16	14.16	17	19.28	18	18.73	19	7.22	20	14.94	21	18.40	22	14.15	23	20.87	24	14.72	25	NO RECORD	26	15.43	27	18.53	28	NO RECORD
29		30	13.03	31	15.16	32	10.74	33	10.74	34	5.69	35	16.42	36	14.44	37		1938											

LAND OWNERSHIP

There are 1,650,805 acres in Lincoln county. Of this amount (for complete figures see accompanying table) 223,388 acres (13.5 percent) are public lands. There are 155,107 acres (9.4 percent) owned by corporations, while private ownership holds 1,272,310 acres or 77.1 percent. Non-residents hold 42.4 percent of all the land in the county. This percentage is high and presents a serious problem. Much of the land owned by non-residents is of a type that lends itself to speculative farming, and as a result has suffered abuses common to non-resident owned land. The soil of much of the county is quite susceptible to wind erosion even when given the best of care. The non-resident owner generally is not in a position to care for his land and in other cases appears not to care what happens to it. The result is that much of this land is creating a serious hazard from a wind erosion standpoint. Often it blows badly and little or no effort is made to control it. However, it is much easier for the resident owners who are on the ground to devise and carry out methods by which blowing may be controlled.

LAND USE

There are 463,889 acres of plowed land in Lincoln county. This is 28.1 percent of all the land in the county. The ratio of plowed land to pasture land is not as high as in some of the nearby counties. However, since the plowed land is concentrated

Land Ownership

Source: Land Ownership Survey, 1935

Type of Ownership	Acres	Percent
Public Lands	223,388	13.5
United States	4,803	.3
State	142,044	8.6
Tax Sale	76,354	4.6
Deed (County)	160	-
Miscellaneous	22	-
Corporation	155,107	9.4
Insurance Company	6,009	.4
Railroads	1,373	-
Land Investment and Mortgage Co.	25,907	1.6
Commercial Bank	27,811	1.7
Federal Land Bank	24,341	1.5
Joint Stock Land Bank	960	-
Miscellaneous	68,706	4.2
Individually Owned	1,272,310	77.1
Resident of County	573,057	34.7
Out of County	256,498	15.6
Out of State	442,755	26.8
Total Non-resident	699,253	42.4
Grand Total	1,650,805	100.0

in certain parts of the county, the ratio in these areas run much higher.

At the time the survey was made the 463,889 acres of plowed land was being used as follows: (For complete figures see Tables 2 and 3). Small grains account for 47,236 acres or 10.2 percent. Row crops were planted on 125,346 acres (27.0 percent). There were 24,681 acres (5.3 percent) left fallow. Idle land accounts for 86,979 acres, this being 18.7 percent. The remaining plowed land is abandoned crop and amounts to 178,636 acres, or 38.6 percent.

In a study of the land use of Lincoln county one of the striking features is the large amount of open land. There were, at the time of the survey, 636,892 acres of open land. Of this amount 178,685 acres were abandoned crop land, and 458,207 acres were open pasture. The open land amounts to 38.6 of all the land in the county.

Abandoned crop land presents a serious problem form the standpoint of wind erosion. Much of it is non-resident owned and as a result received little treatment to prevent blowing.

The large amount of open pasture land is used as "free range" by the operators of the county, as well as by non-resident stockmen. Many operators frankly state that if it were not for this "free range" they could not possibly exist. Since it is used generally and no rent is paid for its use, the land is subject to no responsible control and as a result is very badly overgrazed and depleted. This creates a hazardous condition for wind and water erosion.

AREA 1

The land use survey showed 103,315 acres in this area. Of this amount 57,006 acres (55.2 percent) are within operating units, while 46,309 acres (44.8 percent) are outside of operating units.

At the time of the survey the land within operating units was being used as follows: 13,993 acres, or 24.8 percent of all the land in operating units, were being used for the growing of row crops (mostly beans); 5,475 acres (9.6 percent) were idle crop land; while pasture made up the remaining 37,538 acres (65.4 percent).

Included in the 46,309 acres of land outside of operating units were 17,880 acres of abandoned crop land and 46,309 acres of open pasture.

This area has been used extensively for the growing of beans and as a result has suffered extremely from wind erosion. Some of the worst eroded land in the county is found in this area. In order to correct this condition, a change in the land use practices is necessary. However, before this can be successfully done, extensive treatment must be given much of the land. Outside help is needed as farmers in the area are not equipped or financially able to properly cope with this problem.

AREA 2

This area contains 156,997 acres. There are 115,436 acres (73.5 percent) in operating units and 41,561 acres (26.5 percent) outside of operating units.

The land within operating units, at the time of the survey, had the following use: There were 29,587 acres, or 25.6 percent, in crop land. Idle land amounted to 16,386 acres, or 14.2 percent. There were 69,018 acres, or 59.8 percent, in pasture. The remaining 445 acres, or .4 percent, were fallow.

The survey showed that of the 41,561 acres of land outside of operating units, 18,510 acres, or 44.5 percent, were abandoned crop land and 23,051 acres, or 55.5 percent, were in pasture.

This area, for the most part, is in a sandy soil and has been used extensively in the past for the growing of row crops for cash. Under proper climatic conditions the soil is very productive. This fact has led the operators of the area to practice intensive crop farming year after year in the hopes of securing a bumper crop.

Continued failure of the area to produce much in the way of cash crops during the past few years suggests that certain land use changes are necessary to put the area in a stable agricultural basis. Larger units, with more emphasis placed upon the production of livestock, are desirable. However, the financial means of making these adjustments are, in most cases, beyond the ability of individual operators to accomplish. If adjustments of land use are made in this area, they will call for united efforts on the part of the operators and various public agencies.

AREA 3

Area 3 contains 901,944 acres. Of this amount 554,357 acres, or 61.4 percent, are within operating units and 347,587 acres, or

38.6 percent, are open or outside of units.

The land within operating units, at the time of the survey, was being used as follows: 21,660 acres, or 4.2 percent, were in crop land; 1,295 acres, or .3 percent, were fallow; 17,397 acres, or 3.4 percent, were idle; while 515,005 acres, or 92.1 percent, were in pasture.

There were 347,587 acres of land outside of operating units; 32,320 (9.3 percent) were crop abandoned, and 315,267 acres (90.7 percent) were open pasture.

This area is largely in pasture, as only 8.2 percent of the total average is plowed.

This area, being mostly in pasture, is used for livestock purposes. In this respect it is being put to its proper use. It is true that much of this land, due to conditions of drought and overgrazing, has been badly depleted and in some cases has started to blow. However at the present time, the use to which the land is being put is generally the proper one. Other problems, such as control over the itinerant stockman, exist but do not seriously effect the land use.

AREA 4

This area comprises 126,696 acres. There are 84,313 acres, or 66.5 percent, in operating units, and 42,383 acres of land outside of operating units.

At the time of the survey the land within operating units had the following use: Crops were planted on 23,163 acres, or on 27.4

percent of the land. There were 4,006 acres, or 4.8 percent, fallow. Idle land amounted to 9,027 acres, or 10.7 percent. The remaining 48,117 acres, or 57.1 percent, were in pasture.

The 42,383 acres of land outside of operating units was made up of 23,724 acres, or 55.9 percent, of abandoned crop land and 18,659 acres, or 44.1 percent, of open pasture land.

The land use in this area is similar to that of Area 2. However, more cash grain and more row crops for feed are grown here than in Area 2. The actual use of plowed land shows 20,491 acres row crop; 2,460 acres small grain; 212 acres hay; 4,006 acres fallow; and 9,027 acres idle. Land use adjustments similar to those suggested for Area 2 are needed here.

AREA 5

Area 5 contains 371,950 acres. There are 226,668 acres, or 60.9 percent, in operating units and 145,282 acres outside of operating units.

Of the 226,668 acres within operating units, crop land comprises 89,285 acres, or 39.4 percent; 18,975 acres, or 8.4 percent, are fallow; 45,790 acres, or 20.2 percent, are idle; and 72,618 acres, or 32.0 percent, in pasture.

The 145,282 acres of land outside of operating units are comprised of 93,562 acres, or 64.4 percent, of abandoned crop land and 51,720 acres, or 35.6 percent, of open pasture land.

The plowed land, at the time of the survey, was being used as follows: 44,344 acres were in small grain; 44,836 acres were

in row crop; 105 acres were in hay; 18,975 acres were fallow; 45,790 acres were idle; and 93,562 acres were crop abandoned.

This area, in the past, has been subject to intensive crop practices and has been used jointly for the growing of row crops and small grains. Land use adjustments are definitely needed in this area. At the time of the survey 93,562 acres, or 25.2 percent of all the land in the area, were abandoned crop land. This land receiving no care is a serious menace not any to itself but to adjoining lands, from the standpoint of wind erosion. This area has some of the best dry farming land in Colorado. Unless steps are taken to prevent wind erosion and to work out other adjustments, continued misuse and lack of care will probably result in a general lowering of land values in this area. Besides the danger that exists from wind erosion, other problems are important from a land use viewpoint. Many units are too small to ever provide an adequate living over a period of years. In attempting to do this, the farmers are forced to follow practices that are not in harmony with good land use. Some adjustments, whereby operators will be enabled to add to the size of their units and not be forced to depend on strict crop farming, are badly needed.

TYPE OF FARM

The 821 operators contracted were classified as to type of farms. Four classifications were used: Livestock, crop, general, and three who fell into none of these classes were left unclassified. (See table of definitions).

One hundred and seventy-one farmers were classified as livestock operators; 335 as crop; 312 as general; and 3 were unclassified.

The 171 livestock operators controlled 696,590 acres or 60.9 percent of all the land within operating units. They owned 226,697 acres and rented 469,893 acres. The average size farm of this type was 4,074 acres.

The 335 crop operators controlled 187,829 acres. They owned 69,598 acres and rented 118,231 acres. The average size farm of this class was 561 acres.

The 312 general farmers controlled 257,739 acres of 15.3 percent of all land within units. They owned 82,012 acres and rented 175,727 acres. The average size farm of this class is 826 acres.

The three operators who were unclassified controlled 2,320 acres of land. They owned 320 acres and rented 2,000 acres. The average size of farm was 773 acres.

There were, at the time of the survey, 335 crop operators in Lincoln county. This classification, being 40.8 percent of all operators, is very high. It is advisable that the number of farms of this type be reduced as much as possible. It has been shown conclusively that over a period of years, the farmer who depends on dry land crop farming alone cannot survive in the Southern High Plains. The operators who have been able to maintain a better standard of living are those who have been

using their land for livestock production and have planted only enough crops to secure forage for winter feed. Many of the crop farmers have been forced by the drought to move on, but a series of wet years will likely bring them back or others to come in.

TENURE

In analyzing tenure we find that of the 821 operators, 158 are owners, 356 are tenants, and 307 both own and rent land. This places 43.4 percent of the total number of operators in the position of tenants.

Since this rate is high, the question of tenancy in Lincoln county is extremely important from at least two points of view. First, tenancy has produced conditions that can definitely be identified with certain undesirable land use practices. In the second place, tenancy always produces certain social and economic obligations that cannot be ignored.

As far as land use is concerned, tenancy under present conditions is generally harmful to best land use practices. This can be directly traced in a number of cases to the relationship between tenant and landlord as signified by the type of leases that prevail. These leases for the most part are for short terms, the majority of them for only one year. A few are longer, but these are exceptions. When a tenant has a short term lease, he cannot reasonably be expected to take the same care of the land that he would if assured the use of it for a longer period.

If a crop farmer he feels that it is necessary to secure as high a return from the land as possible from cash crops. Since he has no assurance that he will have control of the same land the following year, no thought is generally given to future planning or improvement of this land. He is concerned only in the immediate return. This encourages a speculative type of farming that does not lend itself to agricultural stability. Especially is this true when the land is held primarily for speculative purposes by non-resident owners. Often in these cases the landlord at the signing of the lease specifies the types and acreage of crops to be planted.

In the case of grass land much the same situation exists. It is impractical from the tenant's viewpoint, to hold grass in reserve, as the lease may expire before it is used. If the lease is not renewed, the grass is lost to the tenant.

A program of long-time leases would do much to correct this undesirable condition. However, in such a program, some provision must be made for the protection of the landlord. Many of them state that they would gladly give long-time leases, but the fear of securing poor tenants, who would be hard to evict, makes them hesitate. This is a joint problem of both tenant and landowners and can be solved only by the closest cooperation and with concessions from both sides.

Social aspects of the situation are also important. Tenants generally move about a great deal. This unstable element of population does not enter into and adds little that is constructive to

community life. On the other hand, they demand many services from the community. Schools, roads, and churches must be provided for them. The variableness of their numbers makes this a difficult problem. It keeps taxes and administrative costs high. Little in the way of community or agricultural stability can be achieved with this continual shifting of a considerable portion of the farm population.

SIZE OF FARM

Most sections of the Southern High Plains region are handicapped by a relatively high number of small farms. Lincoln county is no exception to the rule. This directly reflects the old homestead policy of the government. Many of these farms are too small to provide the operators with an adequate income even in good years. When a series of poor years occur in succession the operators of small units are forced in many cases to move.

In a discussion regarding the size of farms the question always arises as to what constitutes a proper size unit for a farm in the Southern High Plains region. The answer can be only relative. Such things as land use, soil types, accessibility to water and individual initiative must be considered. Careful studies in many parts of this region and discussions with local farmers indicate that farmers need from two to eight sections to insure a reasonable income from year to year. The size of unit needed depends upon the type of operation carried out. (See Appendix C for analysis of different size units.)

A comparison between the size of recommended units and conditions as they actually exist furnish some interesting contrasts. Of the 821 farms, 513 (62.5 percent) are 720 acres of less. Only 84 farms (10.2 percent) are larger than three sections. (See table 17 for complete figures.) These figures clearly indicate that many of the farms in Lincoln county are too small to return an adequate living over a period of years.

One possible solution is a cooperative movement on the part of farmers to enlarge their units, by obtaining long-term leases on additional pasture land. This will require considerable work in the nature of an educational program for the individuals interested. It would be necessary to convince the land owners that long-term leases would be to their advantage. This will require considerable work, but can be done as demonstrated by the success in Cheyenne county, Colorado.

Another method that might be used is the federal purchase of land. A properly conducted purchase program could do much to eliminate improper land use and uneconomic size units. This could be done by buying tracts that are submarginal or not primarily suited to crop production. Many of these tracts that are unsuitable for crop production are also too small for grazing units. By buying them the government can include them in a large grazing area.

To insure proper land use in the future, it will be necessary to eliminate purely speculative use. Such control must be had that grazing land cannot be plowed and put to crop

production when favorable climatic and market conditions recur. This could be achieved by placing the administration of the purchase area in some responsible local organization. This organization would have the power to enact and enforce such regulations as would be in harmony with good land use practices.

YEARS ON FARM

An excellent yardstick to use in measuring the stability of a community is the number of years each operator has occupied the farm upon which he resides.

When a community is found in which many of the individuals move about from year to year, it generally indicates improper land use and a speculative type of farming. People came to these areas with the hope of "getting rich overnight." Few of them planned to make their homes permanently in the area.

Throughout the Southern High Plains region the percentage of people who have been on their farms only a short time is high. Especially is this true in the counties that are used for speculative wheat production.

A study of the figures for Lincoln county shows that 333 operators, or 40.5 percent of the total, have been on their present farms six years or less.

This unstable element in the population creates at least three types of problems: public and administrative costs of county government are raised, social obligations are increased, and long-time planning to achieve agriculture stability hindered.

CONDITION, OCCUPANCY AND FACILITIES OF FARMSTEADS

Occupied Houses

At the time of the survey there were 773 occupied houses. In classifying these as to condition, it was found that 109 (14.3 percent) were in good condition, 338 (44.3 percent) were in fair condition, and 315 (41.4 percent) were in poor condition.

Unoccupied Houses

A record was also made of abandoned houses in the county; there were 662 of these. A further analysis shows that 263 were in ruins, indicating a long period of abandonment, and 399 were not in ruins and had only recently been abandoned.

The large numbers of abandoned houses indicate that at one time the rural population of Lincoln county was much greater than at present. Conditions of drought and depression have forced many to leave the county recently. The fact that 399 houses were at the time of the survey still in a fair state of repair shows that much of the exodus has been quite recent. These people are gone, forced by various conditions of drought and other circumstances to seek new homes in new locations. They can be forgotten as far as present conditions are concerned. But what of the future? If several wet years occur, and news is broadcast that Lincoln county is producing crops again, may not many of them and others return? If nothing is done to discourage them, this is likely to happen. Speculators will rush in and plow more land and crops will be planted with little thought or care for proper land use.

SUBSIDIES

Federal money that has been spent in Lincoln county during the last few years, 1933 - 1936, amounts to $2,385,915. Of this amount, $1,408,593 has been spent as emergency expenditures and $977,322 additional has been loaned upon good security. On a per capita basis this amounts to $117 for each person in the county. This is based on the 1930 census figures which show 7,850 people in the county. The number of people in the county at present time is considerably under this figure. This will place the per capita figure much higher.

When considering expenditures of the federal government in this county during the 1933 - 1936 period, the question arises as to how much good this vast sum of money has done.

From a social point of view the answer is obvious. The money has done a tremendous amount of good. The money spent has relieved and prevented a great deal of human suffering.

From a land use point of view the answer is not so encouraging. Much of the money was intended for emergency measures. A crisis existed and it was necessary to get money to the stricken area as soon as possible. Little thought could be given to a long-time program for agricultural stability. For this reason some of the programs were hurriedly written and in some cases did not incorporate good land use practices. In complying with some of the programs, farmers were actually forced to follow land use practices not in harmony with existing conditions.

On the other hand, some farmers took advantage of a paternalistic government and used the programs as a means to an end. Compliance, although carried out, was in a haphazard fashion and little thought was given to anything except the amount of the check to be received.

Agricultural programs in the future, to be successful, must have two things: First, the government must develop a sound program that includes proven practices for the area. Second, the farmers must cooperate and enter into the spirit of such a program. Not only should they comply with the program in order to receive their payments, but should carry their planning much farther. They should stop "farming the government" and develop practices that will lead to a stable income year in and year out.

A P P E N D I X E S

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APPENDIX A

USE OF LAND

in

LINCOLN COUNTY

Table 1

Land Use

Source: Land Use Survey, 1937

Use		Area 1	Area 2	Area 3	Area 4	Area 5	County Total
Within Operating Unit							
Crops	Number	13,993	29,587	21,660	23,163	89,285	177,688
	Percent	13.6	18.8	2.4	18.3	24.0	10.9
Fallow	Number	0	445	1,295	4,006	18,975	24,721
	Percent	-	.3	.2	3.1	5.1	1.4
Idle	Number	5,475	16,386	17,397	9,027	45,790	94,075
	Percent	5.3	10.4	1.9	7.1	12.3	5.6
Pasture	Number	37,538	69,018	514,005	48,117	72,618	741,296
	Percent	36.3	44.0	57.0	38.0	19.5	44.6
Total	Number	57,006	115,436	554,357	84,313	226,668	1,037,780
	Percent	55.2	73.5	61.5	66.5	60.9	62.5
Outside Operating Units							
Crop abandoned	Number	17,880	18,510	32,320	23,724	93,562	185,996
	Percent	17.3	11.8	3.6	18.7	25.2	11.2
Pasture open	Number	28,429	23,051	315,267	18,659	51,720	237,126
	Percent	27.5	14.7	34.9	14.8	13.9	26.3
Total	Number	46,309	41,561	347,587	42,383	145,282	623,122
	Percent	44.8	26.5	38.5	33.5	39.1	37.5
GRAND TOTAL	Number	103,315	156,997	901,944	126,696	371,950	1,660,902
	Percent	100.0	100.0	100.0	100.0	100.0	100.0

Table 2

Use of Plowed Land

Source: Land Use Survey, 1937

Use	Number						Percent					
	Area 1	Area 2	Area 3	Area 4	Area 5	County Total	Area 1	Area 2	Area 3	Area 4	Area 5	County Total
Small grains	0	154	1,135	2,460	44,344	48,093	-	.2	1.6	4.1	17.9	10.0
Row crops	13,993	29,083	19,955	20,491	44,836	128,358	37.5	44.8	27.4	34.2	18.1	26.6
Hay	0	350	570	212	105	1,237	-	.5	.8	.3	-	.3
Fallow	0	445	1,295	4,006	18,975	24,721	-	.7	1.8	6.7	7.7	5.1
Idle	5,475	16,386	17,397	9,027	45,790	94,075	14.6	25.2	23.9	15.1	18.5	19.5
Abandoned crop land	17,880	18,510	32,320	23,724	93,562	185,996	47.9	28.6	44.5	39.6	37.8	38.5
Total	37,348	64,928	72,672	59,920	247,612	482,480	100.0	100.0	100.0	100.0	100.0	100.0

NUMBER AND CONDITION OF

OCCUPIED AND UNOCCUPIED HOUSES

Table 3

Number and Condition of Occupied and Unoccupied Houses

Source: Land Use Survey, 1937

Condition	Number						Percent					
	Area 1	Area 2	Area 3	Area 4	Area 5	County Total	Area 1	Area 2	Area 3	Area 4	Area 5	County Total
Occupied Houses												
Good	3	6	25	12	49	95	4.6	7.3	11.4	11.4	16.0	12.2
Fair	25	46	100	46	110	327	38.5	56.1	45.4	43.8	36.1	42.1
Poor	37	26	70	41	139	313	56.9	31.7	31.8	39.1	45.6	40.3
Rural non-farm	0	4	25	6	7	42	-	4.9	11.4	5.7	2.3	5.4
Total	65	82	220	105	305	777	100.0	100.0	100.0	100.0	100.0	100.0
Unoccupied Houses												
In ruins	25	35	173	28	41	302	28.7	31.5	37.5	29.2	13.3	28.4
Not in ruins	38	51	179	43	120	431	43.7	46.0	38.8	44.8	39.0	40.6
Houses gone	24	25	109	25	147	330	27.6	22.5	23.7	26.0	47.7	31.0
Total	87	111	461	96	308	1,063	100.0	100.0	100.0	100.0	100.0	100.0

LAND USE DATA BY TYPE

Table 4

Comparison of Number of Operators, Acres Owned, Acres Rented, and Total Acres Farmed By Type of Farm

Source: Land Use Survey, 1937

Type of Farm	Number				Percent			
	Operators	Acres Owned	Acres Rented	Acres Total	Operators	Acres Owned	Acres Rented	Acres Total
County								
Livestock	171	226,697	469,893	696,590	20.8	19.8	41.0	60.8
Crop	335	69,598	118,231	187,829	40.8	6.1	10.3	16.4
General	312	82,012	175,727	257,739	38.0	7.2	15.4	22.6
Unclassified	3	320	2,000	2,320	.4	-	.2	.2
Total	821	378,627	765,851	1,144,478	100.0	33.1	66.9	100.0
Area 1								
Livestock	10	4,120	4,040	8,160	13.7	7.8	7.7	15.5
Crop	25	4,640	10,955	15,595	34.2	8.8	20.7	29.5
General	38	11,580	17,503	29,083	52.1	21.9	33.1	55.0
Unclassified	-	-	-	-	-	-	-	-
Total	73	20,340	32,498	52 838	100.0	38.5	61.5	100.0
Area 2								
Livestock	21	12,280	24,643	36,923	19.3	11.8	23.7	35.5
Crop	23	6,560	6,543	13,103	21.1	6.3	6.3	12.6
General	64	20,556	33,196	53,752	58.7	19.8	31.9	51.7
Unclassified	1	-	160	160	.9	-	.2	.2
Total	109	39,396	64,542	103,938	100.0	37.9	62.1	100.0
Area 3								
Livestock	95	192,927	393,390	586,317	43.2	28.2	57.6	85.8
Crop	42	10,567	11,407	21,974	19.1	1.6	1.7	3.3
General	82	15,756	57,499	73,255	37.3	2.3	8.4	10.7
Unclassified	1	320	1,520	1,840	.4	-	.2	.2
Total	220	219,570	463,816	683,386	100.0	32.1	67.9	100.0

(Continued on following page.)

Table 4 - (Continued)

Type of Farm	Number				Percent			
	Operators	Acres Owned	Acres Rented	Acres Total	Operators	Acres Owned	Acres Rented	Acres Total
Area 4								
Livestock	14	6,760	24,564	31,324	18.7	9.4	34.3	43.7
Crop	22	1,373	7,046	8,419	29.3	1.9	9.8	11.7
General	39	7,320	24,669	31,989	52.0	10.2	34.4	44.6
Unclassified	-	-	-	-	-	-	-	-
Total	75	15,453	56,279	71,732	100.0	21.5	78.5	100.0
Area 5								
Livestock	31	10,610	23,256	33,866	9.0	4.6	10.0	14.6
Crop	223	46,458	82,280	128,738	64.8	20.0	35.4	55.4
General	89	26,800	42,860	69,660	25.9	11.5	18.4	29.9
Unclassified	1	-	320	320	.3	-	.1	.1
Total	344	83,868	148,716	232,584	100.0	36.1	63.9	100.0

Table 5

Comparison of Number of Operators, Acres Plowed, Acres of Native Pasture, Total Acres Farmed By Type of Farm

Source: Land Use Survey, 1937

Type of Farm	Number				Percent			
	Operators	Acres Plowed	Acres in Pasture	Acres Total	Operators	Acres Plowed	Acres in Pasture	Acres Total
County								
Livestock	171	46,097	650,493	696,590	20.8	4.0	56.8	60.8
Crop	335	127,346	60,483	187,829	40.8	11.1	5.3	16.4
General	312	113,697	144,042	257,739	38.0	10.0	12.6	22.6
Unclassified	3	290	2,030	2,320	.4	-	.2	.2
Total	821	287,430	857,048	1,144,478	100.0	25.1	74.9	100.0
Area 1								
Livestock	10	2,270	5,890	8,160	13.7	4.3	11.2	15.5
Crop	25	7,885	7,710	15,595	34.2	14.9	14.6	29.5
General	38	9,361	19,722	29,083	52.1	17.7	37.3	55.0
Unclassified	-	-	-	..	-	-	-	-
Total	73	19,516	33,322	52,838	100.0	36.9	63.1	100.0
Area 2								
Livestock	21	6,489	30,434	36,923	19.3	6.2	29.3	35.5
Crop	23	7,473	5,630	13,103	21.1	7.2	5.4	12.6
General	64	20,448	33,304	53,752	58.7	19.7	32.0	51.7
Unclassified	1	50	110	160	.9	.1	.1	.2
Total	109	34,460	69,478	103,938	100.0	33.2	66.8	100.0
Area 3								
Livestock	95	20,977	565,340	586,317	43.2	3.1	82.7	85.8
Crop	42	9,614	12,360	21,974	19.1	1.4	1.8	3.2
General	82	25,979	47,276	73,255	37.3	3.8	6.9	10.7
Unclassified	1	-	1,840	1,840	.4	-	.3	.3
Total	220	56,570	626,816	683,386	100.0	8.3	91.7	100.0

(Continued on following page)

Table 5 -(Continued)

Type of Farm	Number				Percent			
	Operators	Acres Plowed	Acres in Pasture	Acres Total	Operators	Acres Plowed	Acres in Pasture	Acres Total
Area 4								
Livestock	14	3,710	27,614	31,324	18.7	5.2	38.5	43.7
Crop	22	6,617	1,802	8,419	29.3	9.2	2.5	11.7
General	39	14,877	17,112	31,989	52.0	20.7	23.9	44.6
Unclassified	-	-	-	-	-	-	-	-
Total	75	25,204	46,528	71,732	100.0	35.1	64.9	100.0
Area 5								
Livestock	31	12,651	21,215	33,866	9.0	5.4	9.1	14.5
Crop	223	95,757	32,981	128,738	64.8	41.2	14.2	55.4
General	89	43,032	26,628	69,660	25.9	18.5	11.5	30.0
Unclassified	1	240	80	320	.3	.1	-	.1
Total	344	151,680	80,904	232,584	100.0	65.2	34.8	100.0

Table 6

Acreage of Various Uses of Plowed Land
By Type of Farm

Source: Land Use Survey, 1937

Type of Farm	Number							Percent						
	Operators	Small Grain	Row Crop	Hay	Fallow	Idle	Total	Operators	Small Grain	Row Crop	Hay	Fallow	Idle	Total
County														
Livestock	171	3,100	22,745	685	2,531	17,036	46,097	20.8	1.1	7.9	.2	.9	5.9	16.0
Crop	335	29,197	44,796	200	15,142	38,011	127,346	40.8	10.2	15.6	.1	5.3	13.2	44.4
General	312	14,497	58,851	235	16,790	33,324	113,697	38.0	5.0	20.5	.1	2.3	11.6	39.5
Unclass'fd	3	-	130	-	-	160	290	.4	-	-	-	-	.1	.1
Total	821	46,794	126,522	1,120	24,463	88,531	287,430	100.0	16.3	44.0	.4	8.5	30.8	100.0
Area 1														
Livestock	10	-	1,640	-	-	630	2,270	13.7	-	8.4	-	-	3.2	11.6
Crop	25	-	5,420	-	-	2,465	7,885	34.2	-	27.8	-	-	12.6	40.4
General	38	-	7,531	-	-	1,830	9,361	52.1	-	38.6	-	-	9.4	48.0
Unclass'fd	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	73	-	14,591	-	-	4,925	19,516	100.0	-	74.8	-	-	25.2	100.0
Area 2														
Livestock	21	-	3,684	-	335	2,470	6,489	19.5	-	10.7	-	1.0	7.2	18.9
Crop	23	-	5,433	-	-	2,040	7,473	21.1	-	15.8	-	-	5.9	21.7
General	64	100	15,251	70	130	4,897	20,448	58.7	.3	44.2	.2	.3	14.2	59.2
Unclass'fd	1	-	50	-	-	-	50	.9	-	.2	-	-	-	.2
Total	109	100	24,418	70	465	9,407	34,460	100.0	.3	70.9	.2	1.3	27.3	100.0
Area 3														
Livestock	95	310	10,946	415	560	8,746	20,977	43.2	.5	19.3	.8	1.0	15.5	37.1
Crop	42	840	4,917	180	290	3,387	9,614	19.1	1.5	8.7	.3	.5	6.0	17.0
General	82	1,225	14,033	120	927	9,674	25,979	37.3	2.2	24.8	.2	1.6	17.1	45.9
Unclass'fd.	1	-	-	-	-	-	-	.4		-	-	-	-	-
Total	220	2,375	29,896	715	1,777	21,807	56,570	100.0	4.2	52.8	1.3	3.1	38.6	100.0

(Continued on following page)

Table 6 - (Continued)

Type of Farm	Number							Percent						
	Operators	Small Grain	Row Crop	Hay	Fallow	Idle	Total	Operators	Small Grain	Row Crop	Hay	Fallow	Idle	Total
Area 4														
Livestock	14	285	2,315	115	290	705	3,710	18.7	1.1	9.2	.5	1.2	2.8	14.8
Crop	22	755	3,019	-	1,608	1,235	6,617	29.3	3.0	12.0	-	6.4	4.9	26.3
General	39	270	8,252	-	2,283	4,072	14,879	52.0	1.1	32.7	-	9.0	16.1	58.9
Unclassified	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	75	1,310	13,586	115	4,181	6,012	25,204	100.0	5.2	53.9	.5	16.6	23.8	100.0
Area 5														
Livestock	31	2,505	4,160	155	1,346	4,485	12,651	9.0	1.7	2.7	.1	.9	3.0	8.4
Crop	223	27,602	26,007	20	13,244	28,884	95,757	64.8	18.2	17.1	-	8.7	19.0	63.0
General	89	12,902	13,784	45	3,450	12,851	43,032	25.9	8.5	9.1	-	2.3	8.5	28.4
Unclassified	1	-	80	-	-	160	240	.3	-	.1	-	-	.1	.2
Total	344	43,009	44,031	220	18,040	46,380	151,680	100.0	28.4	29.0	.1	11.9	30.6	100.0

Table 7

Farm Population
By Type of Farm

Source: Land Use Survey, 1937

Type of Farm	Resident Operators	Members of Family	Employables
County Total.			
Livestock	167	614	219
Crop	292	1,081	338
General	311	1,330	430
Unclassified	3	10	3
Total	773	3,035	990
Area 1			
Livestock	10	42	12
Crop	16	68	21
General	38	153	48
Unclassified	--	--	--
Total	64	263	81
Area 2			
Livestock	21	93	23
Crop	19	71	25
General	64	268	89
Unclassified	1	4	1
Total	105	436	138
Area 3			
Livestock	91	316	122
Crop	39	136	36
General	81	357	111
Unclassified	1	2	1
Total	212	811	270
Area 4			
Livestock	14	48	20
Crop	21	94	22
General	39	161	60
Unclassified	--	--	--
Total	74	303	102
Area 5			
Livestock	31	115	42
Crop	197	712	234
General	89	391	122
Unclassified	1	4	1
Total	318	1,222	399

Table 8

Inventory of Farm Machinery
By Type of Farm

Source: Land Use Survey, 1937

Type of Farm	Residents				Total Operators		
	Number Operators	None	Auto	Truck	Total Operators	Tractor	Combine
County							
Livestock	167	10	154	22	171	42	2
Crop	292	27	242	43	335	154	35
General	311	17	201	34	312	109	12
Unclassified	3	-	2	-	3	-	-
Total	773	54	599	99	821	305	49
Area 1							
Livestock	10	1	9	1	10	2	-
Crop	16	1	12	3	25	5	-
General	38	2	36	2	38	10	-
Unclassified	-	-	-	-	-	-	-
Total	64	4	57	6	73	17	-
Area 2							
Livestock	21	3	18	3	21	5	-
Crop	19	2	15	2	23	7	-
General	64	6	52	8	64	31	-
Unclassified	1	-	1	-	1	-	-
Total	105	11	86	13	109	43	-
Area 3							
Livestock	91	5	85	11	95	16	-
Crop	39	3	29	7	42	17	2
General	81	-	1	-	82	1	-
Unclassified	1	-	-	-	1	-	-
Total	212	8	115	18	220	34	2

(Continued on following page)

Table 8 - (Continued)

Type of Farm	Residents				Total Operators		
	Number Operators	None	Auto	Truck	Total Operators	Tractor	Combine
Area 4							
Livestock	14	-	14	1	14	3	-
Crop	21	4	16	3	22	10	2
General	39	4	34	1	39	13	1
Unclassified	-	-	-	-	-	-	-
Total	74	8	64	5	75	26	3
Area 5							
Livestock	31	1	28	6	31	16	2
Crop	197	17	170	28	223	115	31
General	89	5	78	23	89	54	11
Unclassified	1	-	1	-	1	-	-
Total	318	23	277	57	344	185	44

Table 9

Facilities by Type
(Resident Operators only)

Source: Land Use Survey, 1937

Type of Farm	Number						Percent					
	Operators	None	Elec Home	Water Dwell	Telephone	Radio	Operators	None	Elec Home	Water Dwell	Telephone	Radio
County												
Livestock	167	57	26	31	36	94	21.6	7.4	3.4	4.0	4.6	12.2
Crop	292	100	23	35	92	134	37.8	12.9	3.0	4.5	11.9	17.4
General	311	132	22	43	94	144	40.2	17.1	2.8	5.6	12.2	18.6
Unclassified	3	1	-	-	1	1	.4	.1	-	-	.1	.1
Total	773	290	71	109	223	373	100.0	37.5	9.2	14.1	28.8	48.3
Area 1												
Livestock	10	3	-	-	1	6	15.6	4.7	-	-	1.5	9.4
Crop	16	11	-	1	1	4	25.0	17.2	-	1.6	1.6	6.2
General	38	21	2	2	3	16	59.4	32.8	3.1	3.1	4.7	25.0
Unclassified	-	-	-	-	-	-	-	-	-	-	-	-
Total	64	35	2	3	5	26	100.0	54.7	3.1	4.7	7.8	40.6
Area 2												
Livestock	21	9	4	2	2	12	20.0	8.6	3.8	1.9	1.9	11.4
Crop	19	9	2	2	3	9	18.1	8.6	1.9	1.9	2.9	8.6
General	64	35	2	5	11	24	61.0	33.3	1.9	4.8	10.5	22.9
Unclassified	1	-	-	-	1	-	.9	-	-	-	.9	-
Total	105	53	8	9	17	45	100.0	50.5	7.6	8.6	16.2	42.9
Area 3												
Livestock	91	32	9	15	15	49	42.9	15.1	4.2	7.1	7.1	23.1
Crop	39	25	1	1	9	7	18.4	11.8	.5	.4	4.2	3.3
General	81	39	4	11	24	32	38.2	18.4	1.9	5.2	11.3	15.1
Unclassified	1	-	-	-	-	1	.5	-	-	-	-	.5
Total	212	96	14	27	48	89	100.0	45.3	6.6	12.7	22.6	42.0

(Continued on following page)

Table 9 - (Continued)

Type of Farm	Number						Percent					
	Operators	None	Elec Home	Water Dwell	Telephone	Radio	Operators	None	Elec Home	Water Dwell	Telephone	Radio
Area 4												
Livestock	14	4	5	6	2	7	18.9	5.4	6.7	8.1	2.7	9.5
Crop	21	-	1	1	5	7	28.4	-	1.4	1.4	6.8	9.4
General	39	19	5	4	8	14	52.7	25.7	6.8	5.4	10.8	18.9
Unclassified	-	-	-	-	-	-	-	-	-	-	-	-
Total	74	23	11	11	15	28	100.0	31.1	14.9	14.9	20.3	37.8
Area 5												
Livestock	31	9	8	8	16	20	9.7	2.8	2.5	2.5	5.0	6.3
Crop	197	55	19	30	74	107	62.0	17.3	6.0	9.5	23.3	33.7
General	89	18	9	21	48	58	28.0	5.7	2.8	6.6	15.1	18.2
Unclassified	1	1	-	-	-	-	.3	.3	-	-	-	-
Total	318	83	36	59	138	185	100.0	26.1	11.3	18.6	43.4	58.2

T E N U R E

Table 10

Comparison of Number of Operators, Acres Owned, Acres Rented, and Total Acres Farmed By Tenure

Source: Land Use Survey, 1937

Tenure	Number				Percent			
	Operators	Acres Owned	Acres Rented	Acres Total	Operators	Acres Owned	Acres Rented	Acres Total
County								
Owner	158	77,588	-	77,588	19.2	6.8	-	6.8
Tenant	356	-	248,772	248,772	43.4	-	21.7	21.7
Part Owner	307	301,039	517,079	818,118	37.4	26.3	45.2	71.5
Total	821	378,627	765,851	1,144,478	100.0	33.1	66.9	100.0
Area 1								
Owner	18	9,180	-	9,180	24.7	17.4	-	17.4
Tenant	32	-	19,715	19,715	43.8	-	37.3	37.3
Part Owner	23	11,160	12,783	23,943	31.5	21.1	24.2	45.3
Total	73	20,340	32,498	52,838	100.0	38.5	61.5	100.0
Area 2								
Owner	27	12,745	-	12,745	24.8	12.3	-	12.3
Tenant	38	-	24,984	24,984	34.9	-	24.0	24.0
Part Owner	44	26,651	39,558	66,209	40.3	25.6	38.1	63.7
Total	109	39,396	64,542	103,938	100.0	37.9	62.1	100.0
Area 3								
Owner	28	13,720	-	13,720	12.7	2.0	-	2.0
Tenant	84	-	90,118	90,118	38.2	-	13.2	13.2
Part Owner	108	205,850	373,698	579,548	49.1	30.1	54.7	84.8
Total	220	219,570	463,816	683,386	100.0	32.1	67.9	100.0

(Continued on following page)

Table 10- (Continued)

Tenure	Number				Percent			
	Operators	Acres Owned	Acres Rented	Acres Total	Operators	Acres Owned	Acres Rented	Acres Total
Area 4								
Owner	9	2,323	-	2,323	12.0	3.2	-	3.2
Tenant	42	-	23,741	23,741	56.0	-	33.1	33.1
Part Owner	24	13,130	32,538	45,668	32.0	18.3	45.4	63.7
Total	75	15,453	56,279	71,732	100.0	21.5	78.5	100.0
Area 5								
Owner	76	39,620	-	39,620	22.1	17.1	-	17.1
Tenant	160	-	90,214	90,214	46.5	-	38.8	38.8
Part Owner	108	44,248	58,502	102,750	31.4	19.0	25.1	44.1
Total	344	83,868	148,716	232,584	100.0	36.1	63.9	100.0

Table 11

Comparison of Number of Operators, Acres Plowed, Acres of Native Pasture, and Total Acres Farmed By Tenure

Source: Land Use Survey, 1937

Tenure	Number				Percent			
	Operators	Acres Plowed	Acres N. Pasture	Acres Total	Operators	Acres Plowed	Acres N. Pasture	Acres Total
County								
Owner	158	42,226	35,362	77,588	19.2	3.7	3.1	6.8
Tenant	356	114,669	134,103	248,772	43.4	10.0	11.7	21.7
Part Owner	307	130,535	687,583	818,118	37.4	11.4	60.1	71.5
Total	821	287,430	857,048	1,144,478	100.0	25.1	74.9	100.0
Area 1								
Owner	18	3,525	5,655	9,180	24.7	6.7	10.7	17.4
Tenant	32	8,030	11,685	19,715	43.8	15.2	22.1	37.3
Part Owner	23	7,961	15,982	23,943	31.5	15.0	30.3	45.3
Total	73	19,516	33,322	52,838	100.0	36.9	63.1	100.0
Area 2								
Owner	27	5,549	7,196	12,745	24.8	5.4	6.9	12.3
Tenant	38	10,699	14,285	24,984	34.9	10.3	13.7	24.0
Part Owner	44	18,212	47,997	66,209	40.3	17.5	46.2	63.7
Total	109	34,460	69,478	103,938	100.0	33.2	66.8	100.0
Area 3								
Owner	28	5,160	8,560	13,720	12.7	.8	1.2	2.0
Tenant	84	25,421	64,697	90,118	38.2	3.7	9.5	13.2
Part Owner	108	25,989	553,559	579,548	49.1	3.8	81.0	84.8
Total	220	56,570	626,816	683,386	100.0	8.3	91.7	100.0

(Continued on following page)

Table 11 - (Continued)

Tenure	Number				Percent			
	Operators	Acres Plowed	Acres N. Pasture	Acres Total	Operators	Acres Plowed	Acres N. Pasture	Acres Total
Area 4								
Owner	9	995	1,328	2,323	12.0	1.4	1.9	3.3
Tenant	42	11,836	11,905	23,741	56.0	16.5	16.6	33.1
Part Owner	24	12,372	33,295	45,668	32.0	17.2	46.4	63.6
Total	75	25,204	46,528	71,732	100.0	35.1	64.9	100.0
Area 5								
Owner	76	26,997	12,623	39,620	22.1	11.6	5.4	17.0
Tenant	160	58,683	31,531	90,214	46.5	25.2	13.6	38.8
Part Owner	108	66,000	36,750	102,750	31.4	28.4	15.8	44.2
Total	344	151,680	80,904	232,584	100.0	65.2	34.8	100.0

Table 12

Acreages of Various Uses of Plowed Land
By Tenure

Source: Land Use Survey, 1937

Tenure	Number							Percent						
	Operators	Small Grain	Row Crop	Hay	Fallow	Idle	Total	Operators	Small Grain	Row Crop	Hay	Fallow	Idle	Total
County														
Owner	158	11,341	19,785	55	3,598	7,447	42,226	19.2	4.0	6.9	-	1.2	2.6	14.7
Tenant	356	13,501	52,441	350	7,344	41,033	114,669	43.4	4.7	18.2	.1	2.6	14.3	39.9
Part Owner	307	21,952	54,296	715	13,521	40,051	130,535	37.4	7.6	18.9	.3	4.7	13.9	45.4
Total	821	46,794	126,522	1,120	24,463	88,531	287,430	100.0	16.3	44.0	.4	8.5	30.8	100.0
Area 1														
Owner	18	-	3,310	-	-	215	3,525	24.7	-	17.0	-	-	1.1	18.1
Tenant	32	-	6,050	-	-	1,980	8,030	43.8	-	31.0	-	-	10.1	41.1
Part Owner	23	-	5,231	-	-	2,730	7,961	31.5	-	26.8	-	-	14.0	40.8
Total	73	-	14,591	-	-	4,925	19,516	100.0	-	74.8	-	-	25.2	100.0
Area 2														
Owner	27	-	4,394	-	40	1,115	5,549	24.8	-	12.8	-	.1	3.2	16.1
Tenant	38	-	6,839	-	115	3,745	10,699	34.9	-	19.8	-	.3	10.9	31.0
Part Owner	44	100	13,185	70	310	4,547	18,212	40.3	.3	38.3	.2	.9	13.2	52.9
Total	109	100	24,418	70	465	9,407	34,460	100.0	.3	70.9	.2	1.3	27.3	100.0
Area 3														
Owner	28	570	2,935	35	450	1,170	5,160	12.7	1.0	5.2	.1	.8	2.1	9.2
Tenant	84	1,192	11,927	190	944	11,157	25,421	38.2	2.1	21.1	.3	1.7	19.7	44.9
Part Owner	108	613	15,034	490	372	9,480	25,989	49.1	1.1	26.5	.9	.6	16.8	45.9
Total	220	2,375	29,896	715	1,777	21,807	56,570	100.0	4.2	52.8	1.3	3.1	38.6	100.0

(Continued on following page)

Table 12 - (Continued)

Tenure	Number							Percent						
	Operators	Small Grain	Row Crop	Hay	Fallow	Idle	Total	Operators	Small Grain	Row Crop	Hay	Fallow	Idle	Total
Area 4														
Owner	9	100	735	-	-	160	995	12.0	.4	2.9	-	-	.6	3.9
Tenant	42	360	7,011	-	1,018	3,447	11,836	56.0	1.4	27.8	-	4.0	13.7	46.9
Part Owner	24	850	5,840	115	3,163	2,405	12,373	32.0	3.4	23.2	.5	12.6	9.5	49.2
Total	75	1,310	13,586	115	4,181	6,012	25,204	100.0	5.2	53.9	.5	16.6	23.8	100.0
Area 5														
Owner	76	10,671	8,411	20	3,108	4,787	26,997	22.1	7.0	5.5	-	2.0	3.2	17.7
Tenant	160	11,949	20,614	160	5,256	20,704	58,683	46.5	7.9	13.6	.1	3.5	13.6	38.7
Part Owner	108	20,389	15,006	40	9,676	20,889	66,000	31.4	13.5	9.9	-	6.4	13.8	43.6
Total	344	43,009	44,031	220	18,040	46,380	151,680	100.0	28.4	29.0	.1	11.9	30.6	100.0

Table 13

Farm Population
By Tenure

Source: Land Use Survey, 1937

Tenure	Resident Operators	Members of Family	Employables
County Total			
Owner	154	534	174
Tenant	320	1,346	397
Part Owner	773	1,155	419
Total	773	3,035	990
Area 1			
Owner	18	82	26
Tenant	23	92	25
Part Owner	23	89	30
Total	64	263	81
Area 2			
Owner	27	107	34
Tenant	35	145	42
Part Owner	43	184	62
Total	105	436	138
Area 3			
Owner	27	96	26
Tenant	78	340	97
Part Owner	107	375	147
Total	212	811	270
Area 4			
Owner	9	28	8
Tenant	41	183	56
Part Owner	24	92	38
Total	74	303	102
Area 5			
Owner	73	221	80
Tenant	143	586	177
Part Owner	102	415	142
Total	318	1,222	399

Table 14

Inventory of Farm Machinery
By Tenure

Source: Land Use Survey, 1937

Tenure	Residents				Total Operators		
	Number Operators	None	Auto	Truck	Total Operators	Tractor	Combine
County							
Owner	154	14	133	24	158	70	14
Tenant	320	49	253	28	356	126	16
Part Owner	299	18	262	61	307	140	21
Total	773	81	648	113	821	336	51
Area 1							
Owner	18	2	16	3	18	4	-
Tenant	23	-	23	-	32	10	-
Part Owner	23	2	18	3	23	3	-
Total	64	4	57	6	73	17	-
Area 2							
Owner	27	3	24	2	27	14	-
Tenant	35	27	2	8	38	-	-
Part Owner	43	4	35	9	44	21	-
Total	105	34	61	19	109	35	-
Area 3							
Owner	27	1	21	6	28	11	1
Tenant	78	3	73	4	84	31	2
Part Owner	107	8	95	16	108	31	2
Total	212	12	189	26	220	73	5

(Continued on following page)

Table 14 - (Continued)

Tenure	Residents				Total Operators		
	Number Operators	None	Auto	Truck	Total Operators	Tractor	Combine
Area 4							
Owner	9	2	7	-	9	-	-
Tenant	41	5	34	3	42	14	2
Part Owner	24	1	23	2	24	12	1
Total	74	8	64	5	75	26	3
Area 5							
Owner	73	6	65	13	76	41	13
Tenant	143	14	121	13	160	71	12
Part Owner	102	3	91	31	108	73	18
Total	318	23	277	57	344	185	43

Table 15

Facilities by Tenure
(Resident Operators only)

Source: Land Use Survey, 1937

Tenure	Number						Percent					
	Operators	None	Elec Home	Water Dwell	Telephone	Radio	Operators	None	Elec. Home	Water Dwell	Telephone	Radio
County												
Owner	154	53	14	20	55	75	19.9	6.8	1.8	2.6	7.1	9.7
Tenant	320	139	18	29	80	143	41.4	18.0	2.3	3.7	10.3	18.5
Part Owner	299	109	39	60	88	155	38.7	14.1	5.1	7.8	11.4	20.1
Total	773	301	71	109	223	373	100.0	38.9	9.2	14.1	28.8	48.3
Area 1												
Owner	18	8	1	1	2	9	28.1	12.5	1.6	1.6	3.1	19.1
Tenant	23	12	-	-	1	10	35.9	18.8	-	-	1.6	15.6
Part Owner	23	15	1	2	2	7	36.0	23.4	1.5	3.1	3.1	10.9
Total	64	35	2	3	5	26	100.0	54.7	3.1	4.7	7.8	40.6
Area 2												
Owner	27	13	2	3	6	12	25.7	12.4	1.9	2.9	5.7	11.4
Tenant	35	20	-	1	4	11	33.3	19.0	-	.9	3.8	10.5
Part Owner	43	20	6	5	7	22	41.0	19.1	5.7	4.8	6.7	21.0
Total	105	53	8	9	17	45	100.0	50.5	7.6	8.6	16.2	42.9
Area 3												
Owner	27	13	1	1	8	9	12.7	6.1	.5	.5	3.7	4.2
Tenant	78	38	4	7	18	29	36.8	17.9	1.9	3.3	8.5	13.7
Part Owner	107	44	9	19	22	51	50.5	20.8	4.2	8.9	10.4	24.1
Total	212	95	14	27	48	89	100.0	44.8	6.6	12.7	22.6	42.0

(Continued on following page)

Table 15 - (Continued)

Tenure	Number						Percent					
	Operators	None	Elec. Home	Water Dwell	Telephone	Radio	Operators	None	Elec. Home	Water Dwell	Telephone	Radio
Area 4												
Owner	9	6	-	1	1	2	12.2	8.1	-	1.4	1.3	2.7
Tenant	41	23	3	2	7	15	55.4	31.1	4.1	2.7	9.5	20.3
Part Owner	24	6	8	8	7	11	32.4	8.1	10.8	10.8	9.5	14.8
Total	74	35	11	11	15	28	100.0	47.3	14.9	14.9	20.3	37.8
Area 5												
Owner	73	13	10	14	38	43	23.0	4.1	3.1	4.4	12.0	13.5
Tenant	143	46	11	19	50	78	45.0	14.5	3.5	6.0	15.7	24.6
Part Owner	102	24	15	26	50	64	32.0	7.5	4.7	8.2	15.7	20.1
Total	318	83	36	59	138	185	100.0	26.1	11.3	18.6	43.4	58.2

YEARS ON FARM

Table 16

Years on Farm

Source: Land Use Survey, 1937

Years on Farm	Number Operators	Percent	Years on Farm	Number Operators	Percent
County Total			Area III		
0-1	100	12.2	0-1	23	10.5
2-3	125	15.2	2-3	32	14.5
4-6	109	13.3	4-6	29	13.2
7-9	63	7.7	7-9	18	8.2
10-12	46	5.6	10-12	17	7.7
13-Over	338	41.1	13-Over	96	43.6
Unknown	40	4.9	Unknown	5	2.3
Total	821	100.0	Total	220	100.0
Area I			Area IV		
0-1	9	12.3	0-1	14	18.6
2-3	9	12.3	2-3	14	18.7
4-6	7	9.6	4-6	9	12.0
7-9	5	6.9	7-9	7	9.3
10-12	1	1.4	10-12	3	4.0
13-Over	32	43.8	13-Over	26	34.7
Unknown	10	13.7	Unknown	2	2.7
Total	73	100.0	Total	75	100.0
Area II			Area V		
0-1	7	6.4	0-1	47	13.7
2-3	17	15.6	2-3	53	15.4
4-6	19	17.5	4-6	45	13.1
7-9	7	6.4	7-9	26	7.6
10-12	7	6.4	10-12	18	5.2
13-Over	47	43.1	13-Over	137	39.8
Unknown	5	4.6	Unknown	18	5.2
Total	109	100.0	Total	344	100.0

SIZE OF FARM

Table 17

Size of Farm

Source: Land Use Survey, 1936

Years on Farm	Number Operators	Percent	Years on Farm	Number Operators	Percent
County Total			Area III		
0-240	87	10.6	0-240	13	5.9
241-400	186	22.7	241-400	40	18.2
401-720	240	29.2	401-720	53	24.1
721-1040	110	13.4	721-1040	28	12.7
1041-1920	114	13.9	1041-1920	36	16.4
1921-3840	49	6.0	1921-3840	21	9.5
3841-5760	16	1.9	3841-5760	13	5.9
5761-Over	19	2.3	5761-Over	16	7.3
Total	821	100.0	Total	220	100.0
Area I			Area IV		
0-240	9	12.3	0-240	14	18.6
241-400	18	24.7	241-400	20	26.7
401-720	21	28.8	401-720	21	28.0
721-1040	10	13.7	721-1040	7	9.3
1041-1920	13	17.8	1041-1920	6	8.0
1921-3840	2	2.7	1921-3840	3	4.0
3841-5760	-	-	3841-5760	2	2.7
5761-Over	-	-	5761-Over	2	2.7
Total	73	100.0	Total	75	100.0
Area II			Area V		
0-240	7	6.4	0-240	44	12.8
241-400	24	22.0	241-400	84	24.4
401-720	34	31.2	401-720	111	32.2
721-1040	18	16.5	721-1040	47	13.7
1041-1920	16	14.7	1041-1920	43	12.5
1921-3840	8	7.4	1921-3840	15	4.4
3841-5760	1	0.9	3841-5760	-	-
5761-Over	1	0.9	5761-Over	-	-
Total	109	100.0	Total	344	100.0

S U B S I D I E S

Table 18

Federal Payments
Amounts Outstanding for Period of
1933 - 1937

Source: Individual Agency

Type of Payment Received	Amount in dollars
Loans	
Federal Land Bank*	977,322
Regional Agricultural Credit Corp.	4,151
Emergency Crop and Drought Loans	137,890
Production Credit Association*	28,053
Rural Rehabilitation Loans	148,325
Sub-total	1,295,741
Grants	
Rural Rehabilitation Grants	31,008
A.A.A. Payments	394,898
A.C.P. Payments	122,918
A.A.A. Livestock	177,970
C.W.A.	44,642
W.P.A.	124,826
F.E.R.A.	193,912
Sub-total	1,090,174
Grand Total	2,385,915
Total Emergency Expenditures	1,380,540
(*Excluding above because of good security)	
Emergency Expenditures Per Capita (1930 Population)	117

Table 19

Government Loans and Subsidies Received by Operators

Source: Land Use Survey, 1936

Type of Farm	Total Operator	None	Drop Hog	Wheat	Seed Loan	Feed Loan	Relief Loan	Rehab. Grant	Work Relief	Direct Relief
County Total	821	338	316	133	66	109	46	30	156	167
Percent	100.0	41.2	38.5	16.2	8.0	13.3	5.6	3.7	19.0	10.3
Area I	73	32	31	1	9	13	4	4	15	19
Percent	100.0	43.8	42.5	1.4	12.3	17.8	5.5	5.5	20.5	26.0
Area II	109	43	62	-	8	11	5	4	12	14
Percent	100.0	39.4	56.9	-	7.3	10.0	4.6	3.7	11.0	12.8
Area III	220	117	67	13	25	32	14	14	33	39
Percent	100.0	53.2	30.5	5.9	11.4	14.5	6.4	6.4	15.0	17.7
Area IV	75	28	37	9	3	8	4	3	15	15
Percent	100.0	37.3	49.3	12.0	4.0	10.7	5.3	4.0	20.0	20.0
Area V	344	118	119	110	21	45	19	5	81	82
Percent	100.0	34.3	34.3	32.0	6.1	13.1	5.5	1.5	23.5	23.8

APPENDIX B

SAMPLE FARM SCHEDULE USED

LAND USE SURVEY

LINCOLN COUNTY

Bureau of Agricultural Economics
Division of Project Organization
OPERATOR'S SCHEDULE
(Dry Farm Land)

Date
Twp
Range
Sec.

Oper. Name
Address
Farmstead Twp Range Sec

1. State 2. County 3. Area 4. Schedule No.
5. Residence 7. Tenure 9. No. Yrs. Region 11. Oper. Age
6. Type of Farm 8. No. Yrs. Farm 10. Size of Farm 12. Condition of Farmstead

13. Acres Owned Acres Rented 15. Acres Total

LAND USE

16. Wheat 20. Sorghums 24. Cover Crop 28. Tame Pasture
17. Barley 21. Hay 25. Fallow 29. Other
18. C orn 22. Cotton 26. Idle 30. Total
19. B room Corn 2 3. Beans 27. Native Pasture

ACREAGE NEEDED TO WHEAT:
31. Cg. 32. Cu 33. CuCr 34. CuCgb 35. CuCf
36. CuCa 37. Total

PRINCIPAL CROPS

CORN, WHEAT, BARLEY, etc.			FEED CROPS		
38. Kind	39. Acres	40. Total A.	41. Kind	42. Acres	43. Total

LIVESTOCK (Total A.U.)

BREEDING STOCK	Up to 1 yr.	1-2 Yrs	2 yrs & over	A. U.	FEEDERS	Up to 1 yr.	1-2 Yrs	2 yrs & over	A. U.
44. Cattle					48. Cattle				
45. Sheep					49. Sheep				
46. Swine					50. Swine				
47. Total					51. Total				

OTHER

66.	Up to 1 yr.	1-2 Yrs	2 yrs & over	A. U.
52. Dairy Stk.				
53. Horse & Mu.				
54. Poultry				
55. Total				

INVENTORY OF FACILITIES:
56. Power Line 60. Water-Dwell. 64. Upright Silo 68. Combine
57. Home Unit 61. Telephone 65. Auto 69. Source Dom. Water
58. In Home 62. Radio 66. Truck 70. Depth Well
59. In Bldg. 63. T rench Silo 67. Tractor 71. Source Stock Water

72. No. Members on Farm 73. Employables (16-65)
74. Man-Wk. Days Employ. Exclu. of Wk. Relief 75. Income from this
76. Prev. Occu. before Settling in Region 77. State 78. Town
79. Original Breaking (T his Farm)

CROP RECORD (Operator's Record on This Farm) 80. Good 81. Fair 82. Poor
83. Failure

28 29 30 31 32 33 34 35 36 37

TENANCY

Type of Rent	Acreage	Amount	Duration of Lease	Landlords Name	Address	Relationship

SOIL CONSERVING PRACTICES: (Acres)
84. Contour 85. Terrace 86. Chisel 87. Strip Crop 88. Cover Crop

RECOMMENDED TYPE OF FARMING

Type	Total Acres	Pasture	Small Grain	Row Crops	Fallow	Livestock

GOVERNMENT LOANS AND SUBSIDIES

89. Agri. Conserv. 92. Seed Loans 95. R.R. Grants
90. Wheat 93. Feed Loans 96. Work Relief
91. Cotton 94. R.R. Loans 97. Direct Relief

(Enumerator's Signature)

(Checker's Signature)

98. Children Attending School and of Pre-School Age

	0-2 Yrs	3 Yrs	4 Yrs	5 Yrs	6-10 Yrs.	10 & Over	Total
Children							

No. Attending School _____

School District (Number and Name _____

99. Factors limiting the capacity of the operated unit to support a farm family:

Order of Importance

_____ 1. None
_____ 2. Size of Unit
_____ 3. Insufficient Grazing Land
_____ 4. Crop land severely damaged by erosion
_____ 5. Pasture land badly depleted by over-grazing, erosion, or lack of moisture
_____ 6. Lack of control of land
_____ 7. Insufficient number of livestock
_____ 8. Crop land unsuitable for crop production
_____ 9. Too much crop land to be economically farmed
_____ 10. Insufficient crop land
_____ 11. Lack of feed storage
_____ 12. Lack of water
_____ 13. Inadequate machinery

100. Probable normal gross annual cash income from farm _____

101. Present land use

1. Cg_____
2. Cu_____
3. Cr_____
4. Ca_____
5. Pn_____

APPENDIX C

COUNTY PLANNING MEETING

Lincoln County - January 24, 1938

A very windy and dusty day prevailed, which reduced the attendance, but made a deeper impression of the necessity for doing something definite in this job of planning toward wind erosion control. It was recommended that planning not only apply to the farm land proper, but to the food supply of the farm family.

Recommendations from the previous meetings were elaborated upon and discussed.

1. Make plans to follow out a procedure to block up land into larger units.
2. Defer grazing upon at least 25 percent of all range land in your unit.
3. Plan for supplemental feed to carry stock instead of overgrazing remainder of range.
4. Have at least a two years supply of feed in the form of roughage and grain on hand at all times.
5. Plan a farm garden for the family with a variety of vegetables.
6. Use diversion dams in the side creeks for water spreading.

Proposed Ranch Unit

1. At least 5 to 8 sections of grass land.
2. One hundred and sixty to 320 acres of crop land for growing supplemental rough feed.

3. At least 100 breeding cows or 800 ewes.

4. Two hundred chickens.

5. Eight to 10 milk cows for family use.

6. Two to 4 horses.

7. Two sows.

8. Farm garden close to the windmill.

9. Use diversion dams to spread water from overflow on grass land.

Sandy Land Section

1. Six hundred and forty acres crop land.

2. Three hundred and twenty acres to crop.

   a. Small grains for feed.

   b. Sorghums and feed crops.

3. Three hundred and twenty acres to farm pasture.

4. One thousand two hundred and eighty acres leased grass land.

5. Thirty range cows.

6. Ten to 12 cows to milk.

7. Two to 5 sows.

8. One hundred to 200 chickens.

9. Farm garden.

   a. Depend upon canned foods about 36 weeks of the year.

   b. One hundred to 125 quarts of fruit and vegetables per person.

10. Two horses and 1 tractor or 6 to 8 horses.

Hard Land

1. Six hundred and forty acres crop land.
2. Three hundred and twenty acres in crop.
    a. Small grains for cash.
    b. Sorghums for roughage.
3. Three hundred acres fallow.
4. Six hundred and forty acres leased grass land.
5. Ten to 12 milk cows.
6. Fifteen range cows.
7. Two horses and 1 tractor or 6 to 8 horses.
8. Two to 5 brood sows.
9. Farm garden.
    a. One hundred to 125 quarts of fruit and vegetables per person for the year.